ALASKA RETIREMENT MANAGEMENT BOARD FINANCIAL REPORT

As of July 31, 2019

ALASKA RETIREMENT MANAGEMENT BOARD

Schedule of Investment Income and Changes in Invested Assets by Fund Fiscal Year-to-Date through July 31, 2019

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Dell's Essels at D. Contain (DEDC)	Beginning Invested Assets	Investment Income (1)	Net Contributions (Withdrawals)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income (2)
Public Employees' Retirement System (PERS)						
Defined Benefit Plans:						
Retirement Trust \$, , , , , ,	, ,	112,702,800 \$	9,602,065,501	1.44%	0.25%
Retirement Health Care Trust	7,807,287,545	19,425,990	(27,898,377)	7,798,815,158	-0.11%	0.25%
Total Defined Benefit Plans	17,273,007,003	43,069,233	84,804,423	17,400,880,659	0.74%	0.25%
Defined Contribution Plans:						
Participant Directed Retirement	1,218,753,974	5,512,616	7,109,879	1,231,376,469	1.04%	0.45%
Health Reimbursement Arrangement	419,023,779	1,035,037	2,851,262	422,910,078	0.93%	0.25%
Retiree Medical Plan	117,399,406	289,946	1,024,807	118,714,159	1.12%	0.25%
Defined Benefit Occupational Death and Disability:						
Public Employees	24,859,446	61,345	221,216	25,142,007	1.14%	0.25%
Police and Firefighters	11,367,334	28,024	96,604	11,491,962	1.10%	0.25%
Total Defined Contribution Plans	1,791,403,939	6,926,968	11,303,768	1,809,634,675	1.02%	0.39%
Total PERS	19,064,410,942	49,996,201	96,108,191	19,210,515,334	0.77%	0.26%
Teachers' Retirement System (TRS)						
Defined Benefit Plans:						
Retirement Trust	5,505,314,103	13,793,591	108,145,749	5,627,253,443	2.21%	0.25%
Retirement Health Care Trust	2,940,744,859	7,315,925	(9,166,824)	2,938,893,960	-0.06%	0.25%
Total Defined Benefit Plans	8,446,058,962	21,109,516	98,978,925	8,566,147,403	1.42%	0.25%
Defined Contribution Plans:			<u> </u>	, , ,		
Participant Directed Retirement	516,072,656	2,268,624	3,419,702	521,760,982	1.10%	0.44%
Health Reimbursement Arrangement	124,841,136	308,366	1,517,020	126,666,522	1.46%	0.25%
Retiree Medical Plan	41,730,124	103,090	358,387	42,191,601	1.11%	0.25%
Defined Benefit Occupational Death and Disability	4,293,954	10,609	34,806	4,339,369	1.06%	0.25%
Total Defined Contribution Plans	686,937,870	2,690,689	5,329,915	694,958,474	1.17%	0.39%
Total TRS	9,132,996,832	23,800,205	104,308,840	9,261,105,877	1.40%	0.26%
Judicial Retirement System (JRS)						
Defined Benefit Plan Retirement Trust	183,941,036	460,625	4,304,832	188,706,493	2.59%	0.25%
Defined Benefit Retirement Health Care Trust	33,156,612	82,375	(22,189)	33,216,798	0.18%	0.25%
Total JRS	217,097,648	543,000	4,282,643	221,923,291	2.22%	0.25%
National Guard/Naval Militia Retirement System (MRS)	-					
Defined Benefit Plan Retirement Trust	40,994,203	98,383	717,219	41,809,805	1.99%	0.24%
Other Participant Directed Plans						
Supplemental Annuity Plan	4,111,631,106	20,000,475	(5,412,577)	4,126,219,004	0.35%	0.49%
Deferred Compensation Plan	983,593,517	7,421,505	(1,228,446)	989,786,576	0.63%	0.76%
Total All Funds	33,550,724,248	101,859,769	198,775,870	33,851,359,887		
Total Non-Participant Directed	26,720,672,995	66,656,549	194,887,312	26,982,216,856	0.98%	0.25%
Total Participant Directed	6,830,051,253	35,203,220	3,888,558	6,869,143,031	0.57%	0.52%
Total All Funds \$	33,550,724,248 \$		198,775,870 \$	33,851,359,887	0.90%	0.30%
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Notes:

⁽¹⁾ Includes interest, dividends, securities lending, expenses, realized and unrealized gains/losses

⁽²⁾ Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates and can be found at: http://www.revenue.state.ak.us/treasury/programs/other/armb/investmentresults.aspx

ALASKA RETIREMENT MANAGEMENT BOARD

Schedule of Investment Income and Changes in Invested Assets by Fund For the Month Ended July 31, 2019

	Beginning Invested Investment Income Net Contribution Assets (1) (Withdrawals)		Net Contributions (Withdrawals)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income (2)
Public Employees' Retirement System (PERS)			(
Defined Benefit Plans:						
Retirement Trust	\$ 9,465,719,458 \$	23,643,243 \$	112,702,800 \$	9,602,065,501	1.44%	0.25%
Retirement Health Care Trust	7,807,287,545	19,425,990	(27,898,377)	7,798,815,158	-0.11%	0.25%
Total Defined Benefit Plans	17,273,007,003	43,069,233	84,804,423	17,400,880,659	0.74%	0.25%
Defined Contribution Plans:						
Participant Directed Retirement	1,218,753,974	5,512,616	7,109,879	1,231,376,469	1.04%	0.45%
Health Reimbursement Arrangement	419,023,779	1,035,037	2,851,262	422,910,078	0.93%	0.25%
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Public Employees	24,859,446	61,345	221,216	25,142,007	1.14%	0.25%
Police and Firefighters	11,367,334	28,024	96,604	11,491,962	1.10%	0.25%
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Notes:

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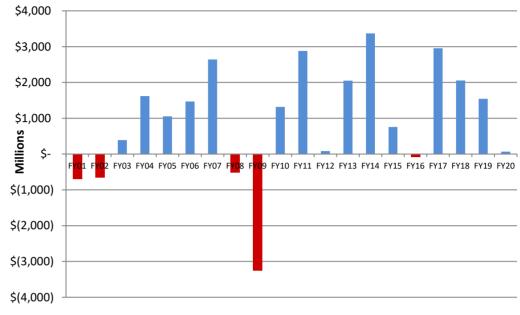
Total Non Participant Directed Assets As of July 31, 2019

Total Assets History



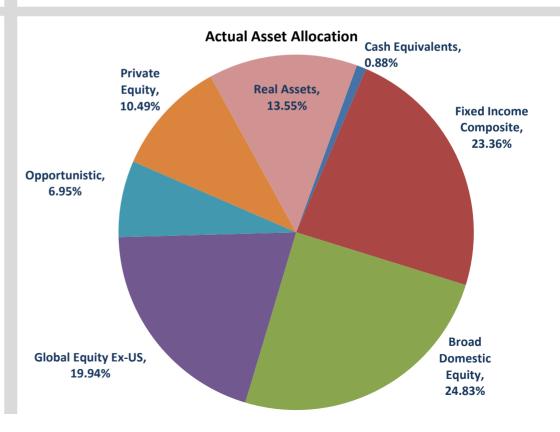


Income by Fiscal Year

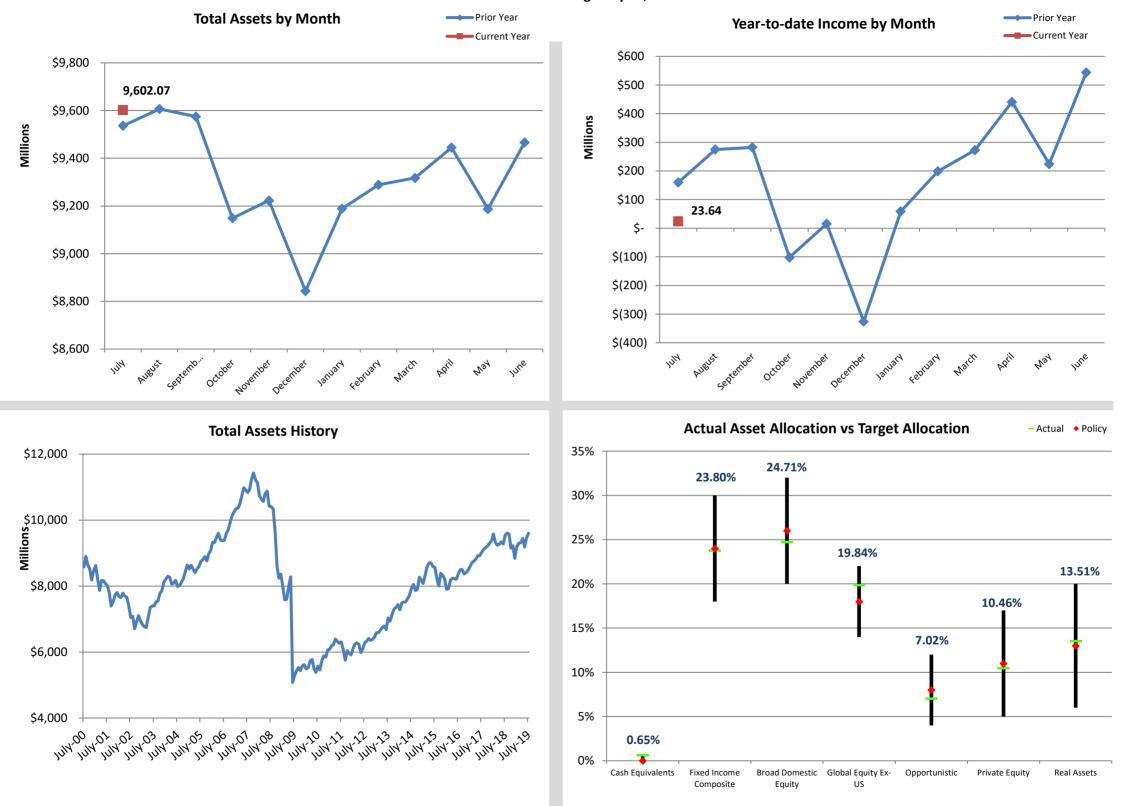




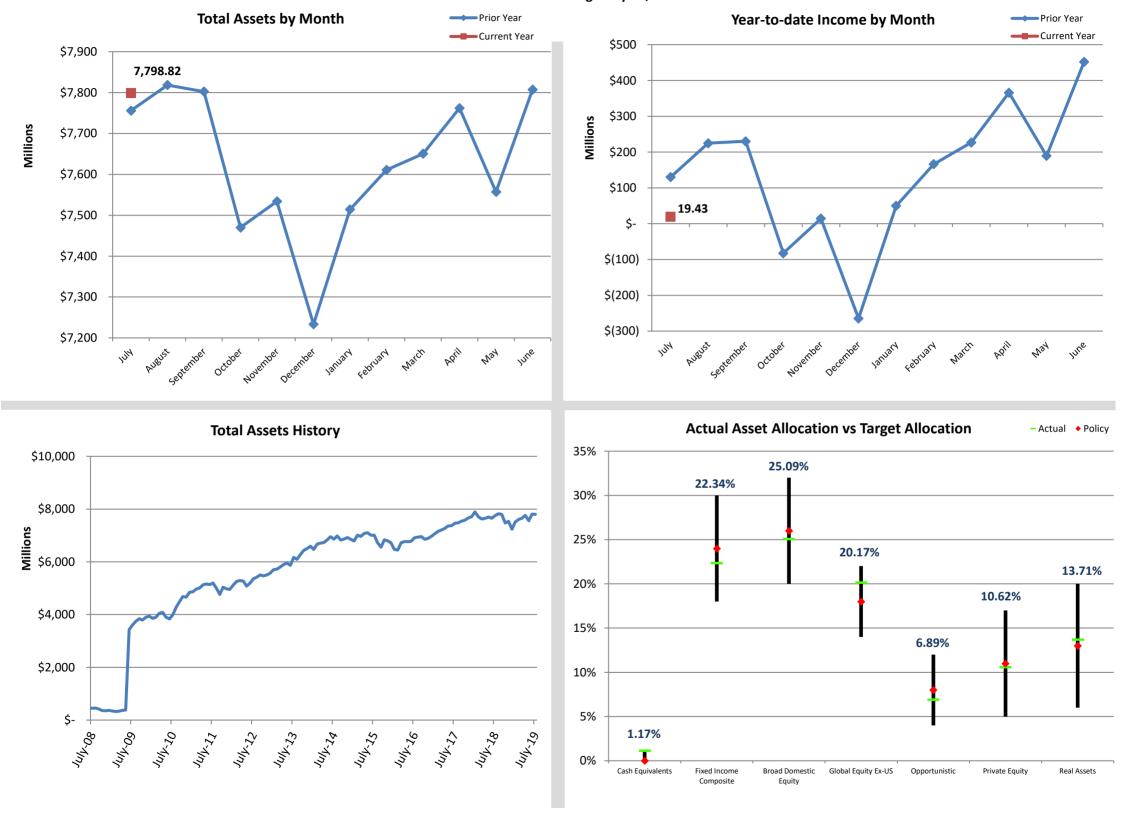
5-year Annualized Returns as of Fiscal Year End 14.00% 12.00% 10.00% 8.00% 6.00% 4.00% 2.00% 0.00% FY01 FY02 FY03 FY04 FY05 FY06 FY07 FY08 FY09 FY10 FY11 FY12 FY13 FY14 FY15 FY16 FY17 FY18



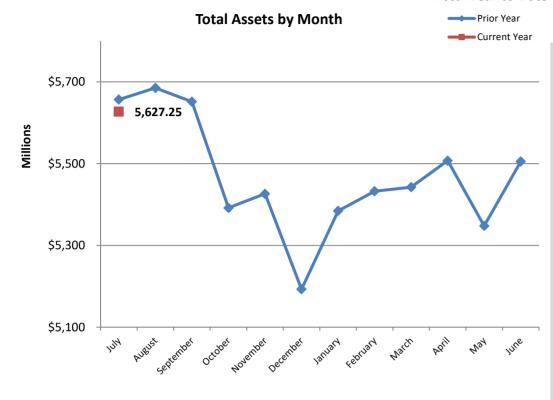
Public Employees' Retirement Pension Trust Fund



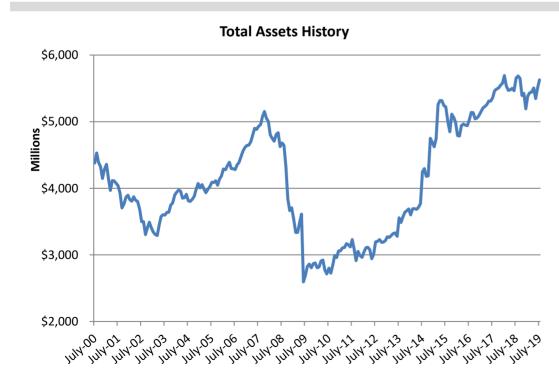
Public Employees' Retirement Health Care Trust Fund

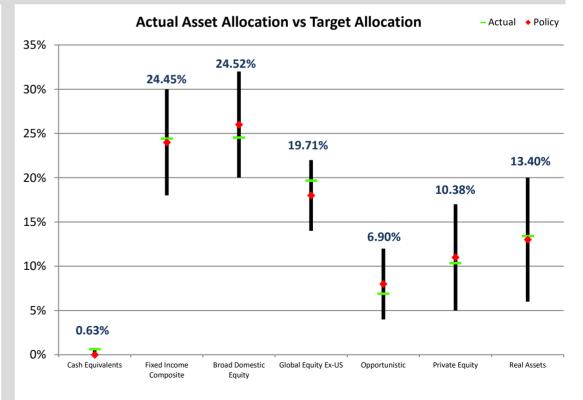


Teachers' Retirement Pension Trust Fund



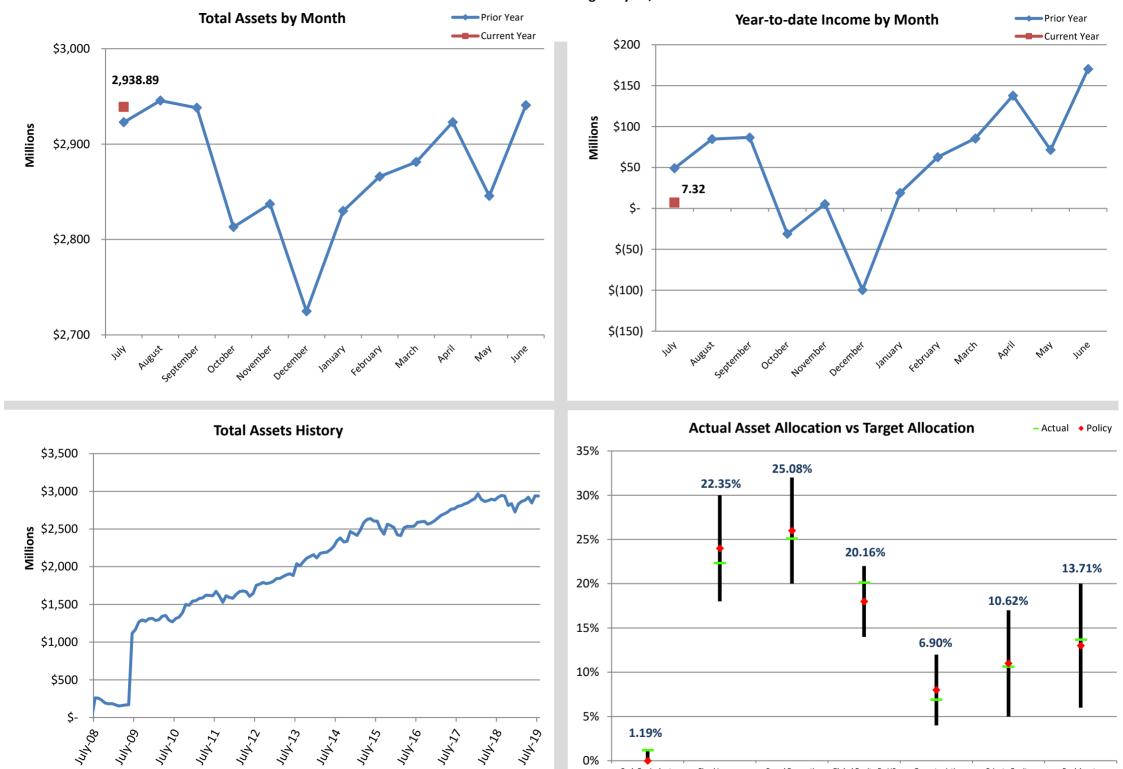






Teachers' Retirement Health Care Trust Fund

Fiscal Year-to-Date through July 31, 2019



Cash Equivalents

Fixed Income

Composite

Broad Domestic

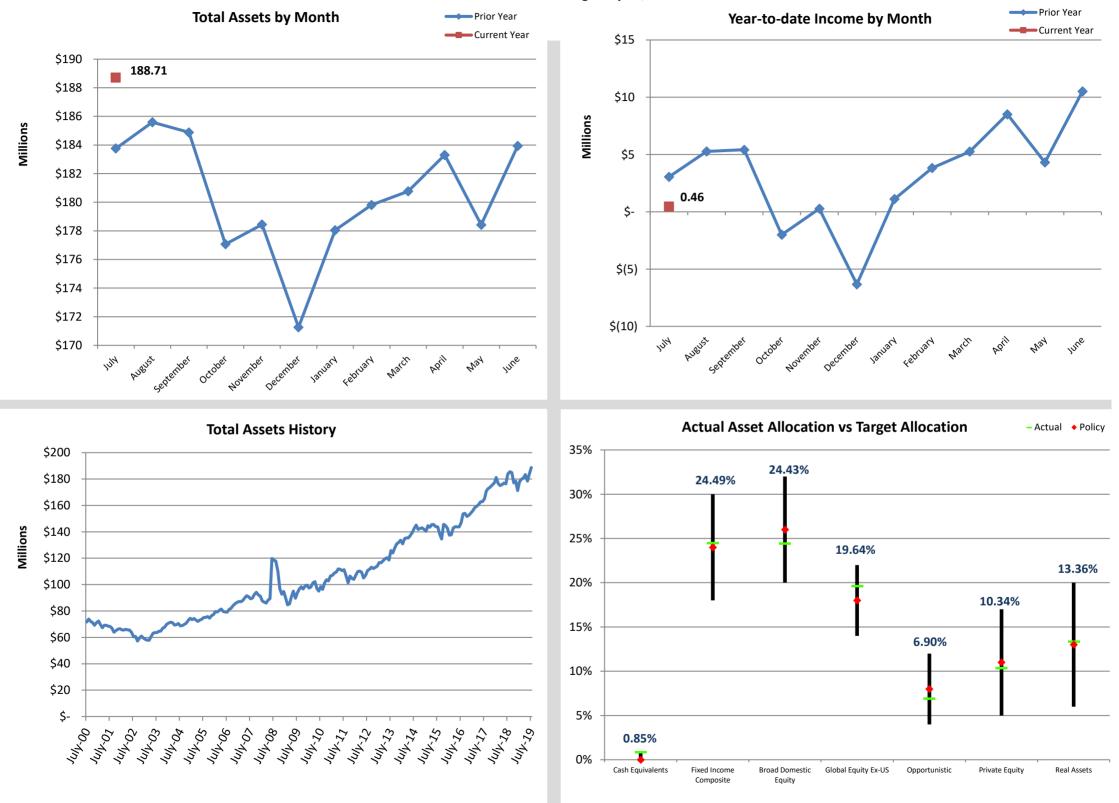
Equity

Global Equity Ex-US

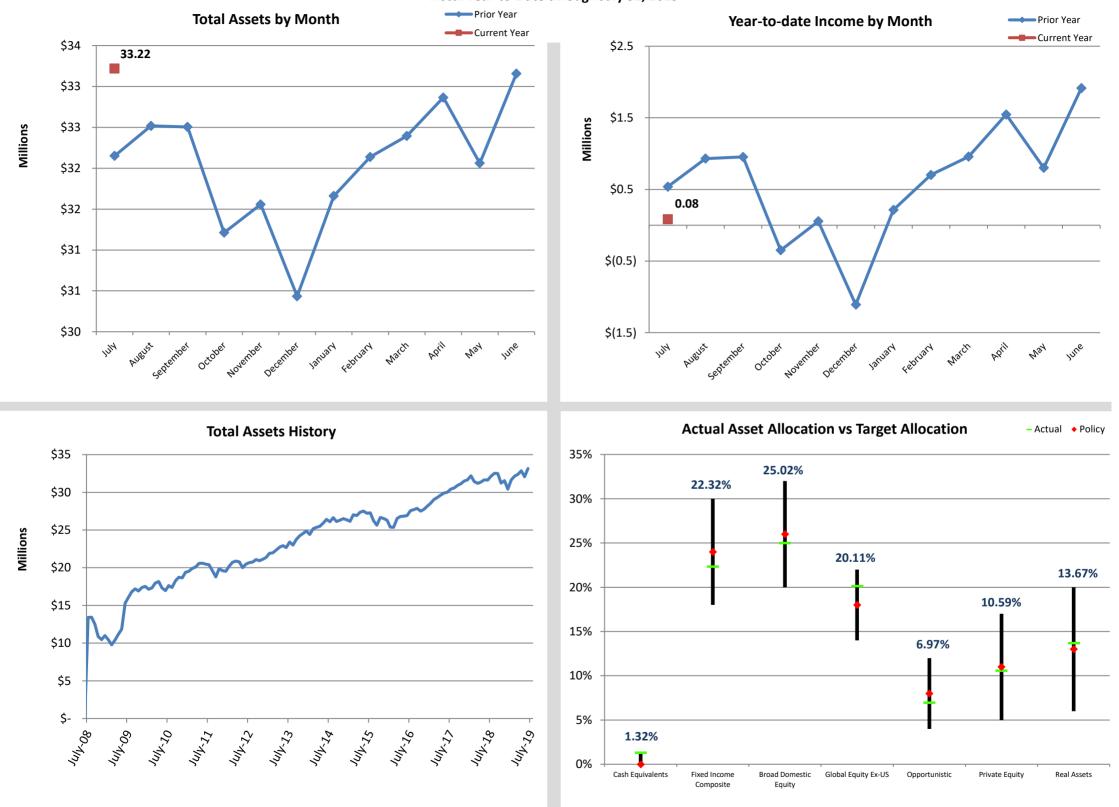
Private Equity

Real Assets

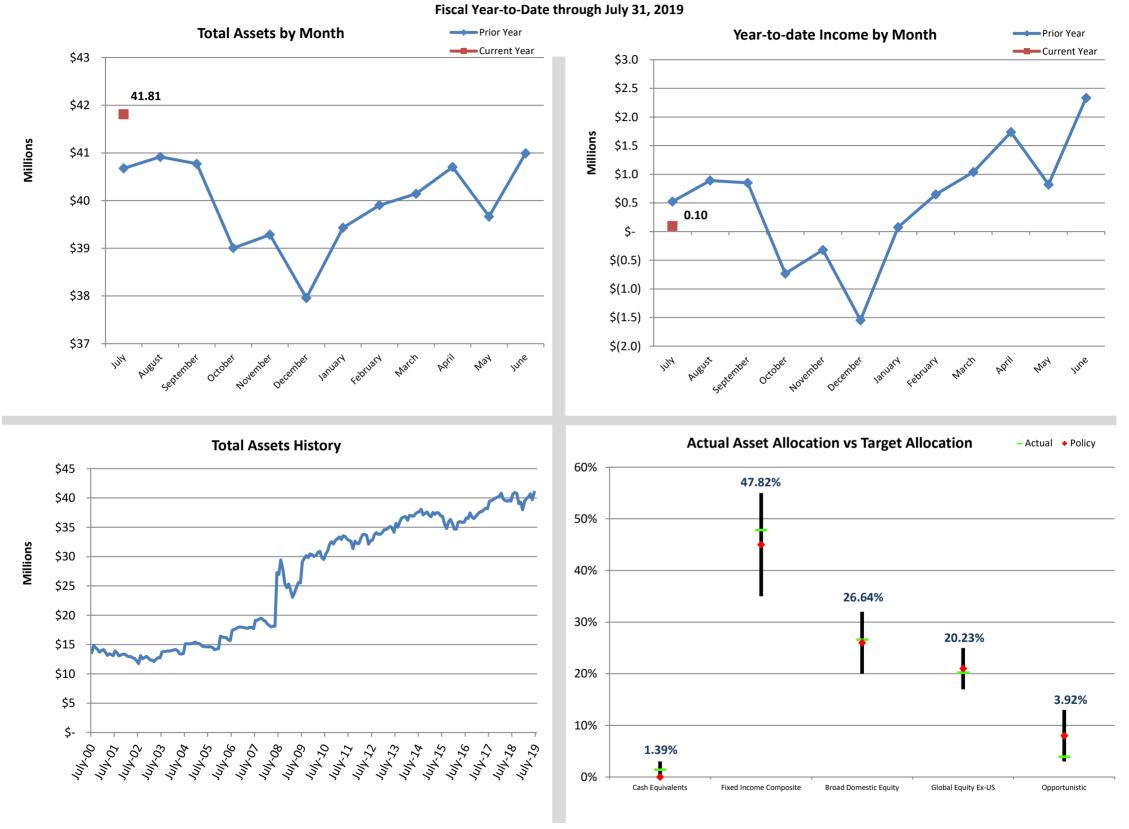
Judicial Retirement Pension Trust Fund



Judicial Retirement Health Care Trust Fund



Military Retirement Trust Fund



ALASKA RETIREMENT MANAGEMENT BOARD

Reporting of Funds by Manager

All Non-Participant Directed Plans

	Beginning Invested Assets		Investment Income		Net Contributions and (Withdrawals)			Ending Invested Assets	% increase (decrease)	% Change due to Investment Income
Cash										
Short-Term Fixed Income Pool	\$	499,768,479	\$	924,409	\$	(261,952,466)	\$	238,740,422	-52.23%	0.25%
Securities Lending Income Pool		181,991		157,529		(182,311)		157,209	-13.62%	173.42%
Total Cash		499,950,470		1,081,938		(262,134,777)		238,897,631	-52.22%	0.29%
Fixed Income										
Alternative Fixed Income										
Crestline Investors, Inc.		545,690,984		(137,025)		17,133,103		562,687,062	3.11%	-0.02%
Prisma Capital Partners		444,160,144		(3,292,228)		-		440,867,916	-0.74%	-0.74%
Crestline Specialty Fund		30,379,233		-		(984,930)		29,394,303	-3.24%	-
Crestline Specialty Lending Fund II		25,484,663		-		(577,580)		24,907,083	-2.27%	-
Total Alternative Fixed Income		1,045,715,024		(3,429,253)		15,570,593		1,057,856,364	1.16%	-0.33%
Opportunistic Fixed Income										
Fidelity Inst. Asset Mgmt. High Yield CMBS		152,094,422		665,695		15,000,000		167,760,117	10.30%	0.42%
Fidelity Institutional Asset Management		349,439,945		2,761,079		-		352,201,024	0.79%	0.79%
MacKay Shields, LLC		53,427,704		129,659		(47,877,841)		5,679,522	-89.37%	0.44%
Mondrian Investment Partners		106,480,077		283,086		(106,289,595)		473,568	-99.56%	0.53%
Western Asset Management		63,932,448		(161,953)		(63,771,805)		(1,310)	-100.00%	-0.51%
Total Opportunistic Fixed Income		725,374,596		3,677,566	-	(202,939,241)	-	526,112,921	-27.47%	0.59%
US Aggregate Bond Index										
Blackrock US Debt Index Non-Lending Fund		13,205,103		27,667		-		13,232,770	0.21%	0.21%
ARMB US Treasury Pool										
ARMB US Treasury Fixed Income		2,805,599,788		(2,396,802)		1,902,325,404		4,705,528,390	67.72%	-0.06%
Total Fixed Income		4,589,894,511		(2,120,822)		1,714,956,756		6,302,730,445	37.32%	-0.04%
Domestic Equities Small Cap Passively Managed										
ARMB Futures Small Cap		4,074,039		(61,052)		-		4,012,987	-1.50%	-1.50%
ARMB S&P 600		154,667,363		7,530,657		397,703,181		559,901,201	262.00%	2.13%
SSgA Russell 2000 Growth		5,630		1,003		-		6,633	17.82%	17.82%
SSgA Russell 2000 Value		7,328		907		-		8,235	12.38%	12.38%
Total Passive		158,754,360		7,471,515		397,703,181		563,929,056	255.22%	2.09%
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	For the Month En	1aea July 31, 2019				
Actively Managed		• ,				
Arrowmark	52,623,434	-	(52,623,434)	-	-100.00%	-
BMO Global Asset Management	49,939,200	(295,088)	(49,644,112)	-	-100.00%	-1.17%
DePrince, Race & Zollo Inc Micro Cap	88,234,466	(1,576,531)	(85,780,919)	877,016	-99.01%	-3.48%
Frontier Capital Mgmt. Co.	48,755,801	-	(48,755,801)	-	-100.00%	-
Jennison Associates, LLC	72,135,702	-	(72,135,702)	-	-100.00%	-
Lord Abbett & Co Micro Cap	96,307,863	(1,984,186)	(94,500,000)	(176,323)	-100.18%	-4.04%
T. Rowe Small Cap Growth	50,735,401	-	(50,735,401)	-	-100.00%	-
Transition Account	-	88,569	98,761	187,330	100.00%	179.36%
Victory Capital Management	51,027,185	-	(51,027,185)	-	-100.00%	-
Zebra Capital Management	86,942,865	(1,209,559)	(70,377,511)	15,355,795	-82.34%	-2.34%
Total Active	596,701,917	(4,976,795)	(575,481,304)	16,243,818	-97.28%	-1.61%
Total Small Cap	755,456,277	2,494,720	(177,778,123)	580,172,874	-23.20%	0.37%
Large Cap						
Passively Managed						
ARMB Futures Large Cap	4,085,873	(37,136)	-	4,048,737	-0.91%	-0.91%
ARMB S&P 900	1,633,073,748	51,249,177	2,515,623,578	4,199,946,503	157.18%	1.77%
ARMB Russell 1000 Value	1,462,238,354	30,264	(1,461,248,265)	1,020,353	-99.93%	0.00%
ARMB Russell Top 200	192,773,199	(938)	(192,734,850)	37,411	-99.98%	0.00%
Total Passive	3,292,171,174	51,241,367	861,640,463	4,205,053,004	27.73%	1.38%
Actively Managed						
Allianz Global Investors	-	9,836	-	9,836	100.00%	100.00%
ARMB Equity Yield	397,822,504	(289)	(397,703,740)	118,475	-99.97%	0.00%
ARMB Large Cap Multi-Factor	105,329,468	1,143,953	-	106,473,421	1.09%	1.09%
ARMB S&P 500 Equal Weight	396,071,709	(3,813)	(395,839,717)	228,179	-99.94%	0.00%
ARMB Scientific Beta	403,976,761	3,839,922	1,046,604,977	1,454,421,660	260.03%	0.41%
Barrow, Hanley, Mewhinney & Strauss	-	16,907	-	16,907	100.00%	100.00%
Lazard Freres	363,483,509	762	(363,619,225)	(134,954)	-100.04%	0.00%
Portable Alpha	465,552,018	9,717,583	(123,173,688)	352,095,913	-24.37%	2.41%
Transition Account	6,558	7,273,666	(6,984,133)	296,091	4414.96%	208.68%
Total Active	2,132,242,527	21,998,527	(240,715,526)	1,913,525,528	-10.26%	1.09%
Total Large Cap	5,424,413,701	73,239,894	620,924,937	6,118,578,532	12.80%	1.28%
Total Domestic Equity	6,179,869,978	75,734,614	443,146,814	6,698,751,406	8.40%	1.18%
Global Equities Ex US						
Small Cap						
Mondrian Investment Partners	190,086,661	(1,329,072)	(24,667,090)	164,090,499	-13.68%	-0.75%
Schroder Investment Management	188,744,662	(2,520,253)	(25,000,000)	161,224,409	-14.58%	-1.43%
Total Small Cap	378,831,323	(3,849,325)	(49,667,090)	325,314,908	-14.13%	-1.09%
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Allianz Global Investors 133,599 (2,577)	Large Cap						
Arrow Street Capital 39,92-21.5 6,081,494 . 385,847.21 1.55% 1.55% 5810Bit Gifford Overseas Limited 387,825,423 2.528,867 . 300,355.299 0.65% 0.65% Blackrock ACWI Ex-US IMI 533,157,891 (1,780,461) (200,000,000) 331,377,430 -37.85% -4.041% Brundes Investment Partners 911,869,305 (13,366,955) (174,266,648) 723,735,702 -20.63% -1.08% -2.041%		133 500	(2.577)	_	131 022	-1 93%	-1 93%
Blackford Overseas Limited 387,825,423 2,526,867 300,352,290 0.65% 0.65% Blackrock ACWI E-LUS IM 533,157,891 0.178,0461 (200,000,000) 33,377,430 -37,85% -0.41% Brandes Investment Partners 911,869,305 (13,866,955) (174,266,648) 723,735,702 -20,63% -1.68% Cap Gourdian Trust Co 598,834,053 (2,078,768) (100,000,000) 496,755,285 -17,05% -0.38% Cap Gourdian Trust Co 598,834,053 (2,078,768) (100,000,000) 496,755,285 -17,05% -0.38% Cap Gourdian Trust Co 598,834,053 (2,187,044) 200,000,000 196,816,296 100,00% -3.15% McKriniey Capital Management 350,214,826 (4,299,640) 419,029 346,34,251 -1.11% -1.23% SS&A MSCI World Ex-US IMI Index Fund 1,003,398,538 (1,165,006) 419,029 346,334,251 -1.11% -1.23% SS&A MSCI World Ex-US IMI Index Fund 1,003,398,538 (1,165,006) -23,847,619 4203,009,660 -7.03% -1.01% **Total Large Cap 4,521,016,620 (44,159,041) (273,847,619) 4203,009,660 -7.03% -1.01% **Emerging Markets Equity** MSCI Emerging Markets Index Fund 325,288,608 (2,429,313) - 321,737,764 -1.20% -0.47% -0.48% Lazard Asset Management 348,855,404 (3,138,067) (100,000,000) 243,717,337 -30,14% -1.23% Total Global Equities 5,864,146,761 (59,490,590) (423,514,799 5,381,14,462 -8.24% -1.05% **Total Global Equities -3,844,939,042 -4,785,530 (389,480,770 -44,002 -99,94% 2,52% **Total Global Equities -3,844,939,042 -4,785,530 (389,480,770 -4,4002 -99,94% 2,52% **Total Global Equities -3,844,939,042 -4,785,530 (389,480,770 -4,4002 -99,94% 2,52% **Total Global Equities -3,844,939,042 -4,785,530 (389,480,770 -4,4002 -99,94% 2,52% **Total Global Equities -3,844,939,042 -4,785,530 (389,480,770 -4,4002 -99,94% 2,52% -2,28% -2,		,	, , ,	_	,		
Blacknock ACWI Ex-USI MI	-	, ,		_	* *		
Brindes Investment Purtners			r r	(200,000,000)	, ,		
Cap Guardian Tiast Co		, ,			* *		
Lagal & General 339,794,019 (4,343,764) 20,000,000 196,846,296 10,000% 3-1,586 10,000% 196,846,296 100,00% 3-1,586 10,000% 196,846,296 100,00% 196,846,296 100,00% 196,846,296 100,00% 196,846,296 100,00% 196,846,296 100,00% 196,846,296 100,00% 11,00%		• • •	* * * * * * * * * * * * * * * * * * * *	, , , ,	· · ·		
Common	-	• • •		(100,000,000)	, ,		
McKinley Capital Management 350,214,826 4,299,040 419,029 346,334,251 1,11% 1,23% SSgA MSCI World Ex-US IMI Index Fund 1,003,938,538 (11,063,006) - 992,875,532 - 1,00% - 1,00% State Street Global Advisors 3,324,751 (15,575) - 3,309,176 - 0,47% - 0,		-		200 000 000	· · ·		
SSgA MSCI World Ex-IIS IMI Index Fund 1,003,938,538 (11,063,006) - 992,875,532 - 1,10% - 0.47%		350.214.826	* * * * * * * * * * * * * * * * * * * *	, ,			
State Street Global Advisors 3,324,751 (1,5575) - 3,309,166 0,47% -0.47% Total Large Cap 4,521,016,620 (44,159,041) (273,847,619) 4,203,009,500 -7,03% -1,01% Energing Markets Equity 8 3,21,373,764 -1,20% -1,20% DePrince, Race, and Zollo Emerging Markets 290,154,806 (2,429,313) -0 287,725,493 -0.84% -0.84% Lazard Asset Management 348,855,404 (513,8067) (100,000,000) 243,717,337 -31,15% -1,26% Total Emerging Markets 964,298,181 (11,482,224) (100,000,000) 243,717,337 -31,56% -1,26% Total Emerging Markets 964,298,181 (11,482,224) (100,000,000) 282,816,594 -11,56% -1,56% -1,56% -2,28% Total Global Equitities 864,146,761 (59,490,590) (42,31,400) 852,816,1544 -1,56% -2,28% Allernative Equity Strategies 7 1 -2 -2 -2 -2 -2 -2 -2 -2 <th< td=""><td>• 1</td><td>• • •</td><td>` , , ,</td><td>-</td><td></td><td></td><td></td></th<>	• 1	• • •	` , , ,	-			
Total Large Cap	6		* * * * * * * * * * * * * * * * * * * *	_			
MSCI Emerging Markets Index Fund 325,288,608 (3,914,844) - 321,373,764 -1.20% -1.20% DePrince, Race, and Zollo Emerging Markets 290,154,806 (2,429,313) - 287,725,493 -0.84% -0.84% Lazard Asset Management 348,855,404 (5,138,067) (100,000,000) 243,717,337 -30.14% -1.26% Total Emerging Markets 964,298,818 (11,482,224) (100,000,000) 852,816,594 -11.56% -1.26% Total Global Equites 5,864,146,761 (59,490,590) (423,514,709) 5,381,141,462 -8.24% -1.05% Opportunistic Alternative Equity Strategy Alternative Equity Strategies Transition Account 384,939,042 4,785,530 (389,480,570) 244,002 -99,94% 2,52% ARMB STOXX Minimum Variance 681,608,237 12,862,031 (600,000,000) 94,470,268 861,44% 3,37% SSgA Managed Volatility-Russell 1000 - 1,550 - 1,560 100,00% McKinley Global Health Care 258,972,671 (1,866				(273,847,619)	<u> </u>		
MSCI Emerging Markets Index Fund 325,288,608 (3,914,844) - 321,373,764 -1.20% -1.20% DePrince, Race, and Zollo Emerging Markets 290,154,806 (2,429,313) - 287,725,493 -0.84% -0.84% Lazard Asset Management 348,855,404 (5,138,067) (100,000,000) 243,717,337 -30.14% -1.26% Total Emerging Markets 964,298,818 (11,482,224) (100,000,000) 852,816,594 -11.56% -1.26% Total Global Equites 5,864,146,761 (59,490,590) (423,514,709) 5,381,141,462 -8.24% -1.05% Opportunistic Alternative Equity Strategy Alternative Equity Strategies Transition Account 384,939,042 4,785,530 (389,480,570) 244,002 -99,94% 2,52% ARMB STOXX Minimum Variance 681,608,237 12,862,031 (600,000,000) 94,470,268 861,44% 3,37% SSgA Managed Volatility-Russell 1000 - 1,550 - 1,560 100,00% McKinley Global Health Care 258,972,671 (1,866	Emousing Moulesta Fauity						
DePrince, Race, and Zollo Emerging Markets 290,154,806 (2,429,313) - 287,725,493 -0,84% -0,84% Lazard Asset Management 348,855,404 (5,138,067) (100,000,000) 243,717,337 30,14% -1,72%	2 2	325 288 608	(3.014.844)		221 272 764	1 20%	1 20%
Lazard Asset Management 348,855,404 (5,138,067) (100,000,000) 243,717,337 -30,14% -1,72% Total Emerging Markets 964,298,818 (11,482,224) (100,000,000) 852,816,594 -11,56% -1,26% Total Global Equities 5,864,146,761 (59,905,90) (423,514,709) 5,381,141,462 -8,24% -1,05%		• • •		_			
Total Emerging Markets 964,298,818 (11,482,224) (100,000,000) 852,816,594 -11,56% -1,26% Total Global Equities 5,864,146,761 (59,490,590) (423,514,709) 5,381,141,662 -8,24% -1,05%			* ' '	(100 000 000)	· · ·		
Total Global Equities					· · ·		
Opportunistic Alternative Equity Strategy Alternative Equity Strategies Transition Account 384,939,042 4,785,530 (389,480,570) 244,002 -99.94% 2.52% ARMB STOXX Minimum Variance 681,608,237 12,862,031 (600,000,000) 94,470,268 -86.14% 3.37% SSgA Managed Volatility-Russell 1000 - 1,560 - 1,560 100,00% 20,00% 2.29% 2.29% 2.29% 2.29% 2.29% 2.29%	6 6				· · ·		
Alternative Equity Strategies Transition Account -	_				· · · · · · · · · · · · · · · · · · ·		
Alternative Equity Strategies Transition Account Analytic Buy Write Account Alternative Equity Strategy 58 84 Managed Volatility-Russell 1000 Ackinley Global Health Care Alternative Equity Strategy 58 972,671 Alternative Equity Strategy 1,325,519,950 15,782,418 298,182,927) Alternative Beta JPM Systemic Alpha An Group Alternative Risk Premia Alternative Risk Premia Alternative Risk Premia Alternative Risk Premia Alternative Beta 212,106,451 2,217,800 115,000,000 329,324,251 55,26% Alternative Beta Alternative Beta Alternative Beta 76,604,629 Age, Age, Age, Age, Age, Age, Age, Age,							
Analytic Buy Write Account 384,939,042 4,785,530 (389,480,570) 244,002 -99.94% 2.52% ARMB STOXX Minimum Variance 681,608,237 12,862,031 (600,000,000) 94,470,268 -86.14% 3.37% SSgA Managed Volatility-Russell 1000 - 1,560 - 1,560 100.00% McKinley Global Health Care 258,972,671 (1,866,703) 297,643 257,403,611 -0.61% -0.72% Total Alternative Equity Strategy 1,325,519,950 15,782,418 (989,182,927) 352,119,441 -73.44% 1.90% Alternative Beta JPM Systemic Alpha 165,720,314 3,788,591 - 169,508,905 2.29% 2.29% Man Group Alternative Risk Premia 212,106,451 2,217,800 115,000,000 329,324,251 55.26% 0.82% Zebra Global Equity Advantage Fund 38,047,678 - - 38,047,678 - - 76,604,629 - - - 24,004,000 613,485,463 24.57% 1.09% Other Opport							
ARMB STOXX Minimum Variance 681,608,237 12,862,031 (600,000,000) 94,470,268 -86.14% 3.37% SSgA Managed Volatility-Russell 1000 - 1,560 - 1,560 100.00% 100.00% McKinley Global Health Care 258,972,671 (1,866,703) 297,643 257,403,611 -0.61% -0.72% Total Alternative Equity Strategy 1,325,519,950 15,782,418 (989,182,927) 352,119,441 -73.44% 1.90% Alternative Beta JPM Systemic Alpha 165,720,314 3,788,591 - 169,508,905 2.29% 2.29% Man Group Alternative Risk Premia 212,106,451 2,217,800 115,000,000 329,324,251 55.26% 0.82% Zebra Global Equity Advantage Fund 38,047,678 38,047,678 2		294 020 042	- 4 705 520	(290 490 570)	244 002	-	2.520/
SSgA Managed Volatility-Russell 1000	· · · · · · · · · · · · · · · · · · ·	• • •	, ,	` ' ' '	· ·		
McKinley Global Health Care 258,972,671 (1,866,703) 297,643 257,403,611 -0.61% -0.72% Total Alternative Equity Strategy 1,325,519,950 15,782,418 (989,182,927) 352,119,441 -73.44% 1.90% Alternative Beta JPM Systemic Alpha 165,720,314 3,788,591 - 169,508,905 2.29% 2.29% Man Group Alternative Risk Premia 212,106,451 2,217,800 115,000,000 329,324,251 55.26% 0.82% Zebra Global Equity Advantage Fund 38,047,678 - - 38,047,678 - - Zebra Global Equity Fund 76,604,629 - - 76,604,629 - - Total Alternative Beta 492,479,072 6,006,391 115,000,000 613,485,463 24.57% 1.09% Other Opportunities Project Pearl 10,290,795 - - 10,290,795 - - - - - - - - - - - - - - - <td></td> <td>001,000,237</td> <td></td> <td>(000,000,000)</td> <td></td> <td></td> <td></td>		001,000,237		(000,000,000)			
Total Alternative Equity Strategy	· · · · · · · · · · · · · · · · · · ·	258 072 671		207 643	· ·		
Alternative Beta JPM Systemic Alpha An Group Alternative Risk Premia Zebra Global Equity Advantage Fund Zebra Global Equity Fund 76,604,629 Total Alternative Beta Other Opportunities Project Pearl Schroders Insurance Linked Securities 165,720,314 3,788,591 - 169,508,905 2.29% 2.29% 2.29% 2.29% 38,047,678 - 169,508,905 2.29% 2.29% 38,047,678 - 38,047,678 38,047,678 76,604,629 - 76,604,629 76,604,629 -	•				, ,		
JPM Systemic Alpha 165,720,314 3,788,591 - 169,508,905 2.29% 2.29% Man Group Alternative Risk Premia 212,106,451 2,217,800 115,000,000 329,324,251 55.26% 0.82% Zebra Global Equity Advantage Fund 38,047,678 - - 38,047,678 - - Zebra Global Equity Fund 76,604,629 - - 76,604,629 - - Total Alternative Beta 492,479,072 6,006,391 115,000,000 613,485,463 24.57% 1.09% Other Opportunities Project Pearl 10,290,795 - - - 10,290,795 - <td< td=""><td>Total Alternative Equity Strategy</td><td>1,323,317,730</td><td>13,702,410</td><td>(707,102,727)</td><td>332,117,441</td><td>-73.44/0</td><td>1.5070</td></td<>	Total Alternative Equity Strategy	1,323,317,730	13,702,410	(707,102,727)	332,117,441	-73.44/0	1.5070
Man Group Alternative Risk Premia 212,106,451 2,217,800 115,000,000 329,324,251 55.26% 0.82% Zebra Global Equity Advantage Fund 38,047,678 - - 38,047,678 - - Zebra Global Equity Fund 76,604,629 - - - 76,604,629 - - Total Alternative Beta 492,479,072 6,006,391 115,000,000 613,485,463 24.57% 1.09% Other Opportunities Project Pearl 10,290,795 - - - 10,290,795 -	Alternative Beta						
Zebra Global Equity Advantage Fund 38,047,678 - - 38,047,678 - - Zebra Global Equity Fund 76,604,629 - - 76,604,629 - - Total Alternative Beta 492,479,072 6,006,391 115,000,000 613,485,463 24.57% 1.09% Other Opportunities Project Pearl 10,290,795 - - 10,290,795 -<	JPM Systemic Alpha	165,720,314	3,788,591	-	169,508,905	2.29%	2.29%
Zebra Global Equity Fund 76,604,629 - - 76,604,629 - - - Total Alternative Beta 492,479,072 6,006,391 115,000,000 613,485,463 24.57% 1.09% Other Opportunities Project Pearl - - 10,290,795 - - 10,290,795 - <td>Man Group Alternative Risk Premia</td> <td>212,106,451</td> <td>2,217,800</td> <td>115,000,000</td> <td>329,324,251</td> <td>55.26%</td> <td>0.82%</td>	Man Group Alternative Risk Premia	212,106,451	2,217,800	115,000,000	329,324,251	55.26%	0.82%
Total Alternative Beta 492,479,072 6,006,391 115,000,000 613,485,463 24.57% 1.09% Other Opportunities Project Pearl 10,290,795 - - 10,290,795 -	Zebra Global Equity Advantage Fund	38,047,678	-	-	38,047,678	-	-
Other Opportunities Project Pearl 10,290,795 - - 10,290,795 - - Schroders Insurance Linked Securities 109,511,490 (2,151,820) (24,000,000) 83,359,670 -23.88% -2.21%	- ·	76,604,629	<u> </u>	<u> </u>	76,604,629	-	-
Project Pearl 10,290,795 - - 10,290,795 - - Schroders Insurance Linked Securities 109,511,490 (2,151,820) (24,000,000) 83,359,670 -23.88% -2.21%	Total Alternative Beta	492,479,072	6,006,391	115,000,000	613,485,463	24.57%	1.09%
Project Pearl 10,290,795 - - 10,290,795 - - Schroders Insurance Linked Securities 109,511,490 (2,151,820) (24,000,000) 83,359,670 -23.88% -2.21%	Other Opportunities						
Schroders Insurance Linked Securities 109,511,490 (2,151,820) (24,000,000) 83,359,670 -23.88% -2.21%	• •	10,290,795	-	-	10,290,795	-	-
	•		(2,151,820)	(24,000,000)	· · ·	-23.88%	-2.21%
	Total Other Opportunities				· · ·	-21.83%	-2.00%

	For the Month En	aea July 31, 2019				
Tactical Allocation Strategies		• /				
Eaton Vance High Yield	25,156	(25,156)	-	-	-100.00%	-100.00%
Fidelity Signals	218,549,428	(1,094,553)	190,000,000	407,454,875	86.44%	-0.35%
PineBridge	210,724,430	(2,566,166)	200,000,000	408,158,264	93.69%	-0.83%
Total Tactical Allocation Strategies	429,299,014	(3,685,875)	390,000,000	815,613,139	89.99%	-0.59%
Total Opportunistic	2,367,100,321	15,951,114	(508,182,927)	1,874,868,508	-20.79%	0.75%
Private Equity						
Abbott Capital	1,081,466,877	6,994,515	244,744	1,088,706,136	0.67%	0.65%
Advent International GPE Fund VIII-B	24,390,673	-	687,500	25,078,173	2.82%	-
Angelo, Gordon & Co.	3,653	-	-	3,653	-	-
Dyal Capital Partners III	27,643,369	590,790	35,851	28,270,010	2.27%	2.14%
Dyal Capital Partners IV	1,222,068	-	(698)	1,221,370	-0.06%	-
Glendon Opportunities	41,212,363	-	-	41,212,363	-	-
KKR Lending Partners II	33,604,522	(212,046)	-	33,392,476	-0.63%	-0.63%
Lexington Capital Partners VIII	36,221,514	-	-	36,221,514	-	-
Lexington Partners VII	19,166,463	-	(615,276)	18,551,187	-3.21%	-
Merit Capital Partners	14,161,379	-	(302,767)	13,858,612	-2.14%	-
NB SOF III	27,308,129	-	-	27,308,129	-	-
NB SOF IV	17,218,344	-	(882,499)	16,335,845	-5.13%	-
New Mountain Partners IV	25,968,656	-	(9,803,800)	16,164,856	-37.75%	-
New Mountain Partners V	18,330,077	-	3,698,945	22,029,022	20.18%	-
NGP XI	48,063,096	-	-	48,063,096	-	-
NGP XII	11,387,885	-	1,136,537	12,524,422	9.98%	-
Onex Partnership III	9,476,684	-	-	9,476,684	-	-
Pathway Capital Management LLC	1,218,407,664	54,905	7,530,166	1,225,992,735	0.62%	0.00%
Resolute Fund III	20,376,116	-	-	20,376,116	-	-
Resolute Fund IV	8,173,064	-	3,940,933	12,113,997	48.22%	-
Summit Partners GE IX	31,363,525	-	2,880,000	34,243,525	9.18%	-
Warburg Pincus Global Growth Fund	351,329	-	1,940,000	2,291,329	552.19%	-
Warburg Pincus X	11,393,877	-	-	11,393,877	-	-
Warburg Pincus XI	27,210,120	70,424	(1,393,547)	25,886,997	-4.86%	0.27%
Warburg Pincus XII	56,574,450	-	3,250,000	59,824,450	5.74%	-
Total Private Equity	2,810,695,897	7,498,588	12,346,089	2,830,540,574	0.71%	0.27%
Real Assets						
Farmland						
Hancock Agricultural Investment Group	269,792,674	-	-	269,792,674	-	-
UBS Agrivest, LLC	586,634,062	-	-	586,634,062	-	-
Total Farmland	856,426,736	-	-	856,426,736	-	-
				·		

Timber						
Hancock Natural Resource Group	99,365,884	-	-	99,365,884	-	-
Timberland Invt Resource LLC	265,570,883	-	(2,000,000)	263,570,883	-0.75%	-
Total Timber	364,936,767		(2,000,000)	362,936,767	-0.55%	-
Enorgy						
Energy EIG Energy Fund XIV-A	10,738,986	(654,092)		10,084,894	-6.09%	-6.09%
EIG Energy Fund XV	23,408,725	(995,559)	(297,568)	22,115,598	-5.52%	-4.28%
EIG Energy Fund XVI	55,858,425	833,839	(297,300)	56,692,264	-3.32% 1.49%	1.49%
Total Energy	90,006,136	(815,812)	(297,568)	88,892,756	-1.24%	-0.91%
Total Ellergy	90,000,130	(813,812)	(297,308)	88,892,730	-1.24%	-0.9170
REIT						
REIT Transition Account	-	(2,349,997)	2,370,991	20,994	-	-198.23%
ARMB REIT	299,780,541	8,676,381	(213,499,410)	94,957,512	-68.32%	4.49%
Total REIT	299,780,541	6,326,384	(211,128,419)	94,978,506	-68.32%	3.26%
Master Limited Partnerships						
Advisory Research MLP	267,672,943	1,138,816	(187,655,872)	81,155,887	-69.68%	0.66%
Tortoise Capital Advisors	280,869,351	1,182,022	(212,538,172)	69,513,201	-09.08% -75.25%	0.68%
Total Master Limited Partnerships	548,542,294	2,320,838	(400,194,044)	150,669,088	-73.23% -72.53%	0.67%
Total Waster Elimited Fartherships	<u> </u>	2,320,636	(400,194,044)	130,009,088	-12.33%	0.0770
Infrastructure Private						
IFM Global Infrastructure Fund-Private	449,729,410	17,617,231	13,197,320	480,543,961	6.85%	3.86%
JP Morgan Infrastructure Fund-Private	120,492,718	<u> </u>	<u>-</u> _	120,492,718	-	-
Total Infrastructure Private	570,222,128	17,617,231	13,197,320	601,036,679	5.40%	3.05%
Infrastructure Public						
Brookfield Investment MgmtPublic	86,612,087	(473,076)	(85,983,444)	155,567	-99.82%	-1.08%
Lazard Asset MgmtPublic	83,578,395	(465,649)	(82,535,817)	576,929	-99.31%	-1.10%
Total Infrastructure Public	170,190,482	(938,725)	(168,519,261)	732,496	-99.57%	-1.09%
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Real Estate						
Core Commingled Accounts						
BlackRock US Core Property Fund	213,266,734	5,158,266	-	218,425,000	2.42%	2.42%
JP Morgan	260,569,094	686,308	(1,880,615)	259,374,787	-0.46%	0.26%
UBS Trumbull Property Fund	67,854,587	(2,645,730)	(6,758,815)	58,450,042	-13.86%	-4.10%
Total Core Commingled	541,690,415	3,198,844	(8,639,430)	536,249,829	-1.00%	0.60%
Core Separate Accounts						
LaSalle Investment Management	127,983,479	-	(622,387)	127,361,092	-0.49%	-
Sentinel Separate Account	171,469,039	-	(501,488)	170,967,551	-0.29%	-
UBS Realty	534,059,715	(1)	(1,059,299)	533,000,415	-0.20%	0.00%
Total Core Separate	833,512,233	(1)	(2,183,174)	831,329,058	-0.26%	0.00%

Non-Core Commingled Accounts						
Almanac Realty Securities V	1,087,610	-	-	1,087,610	-	-
Almanac Realty Securities VII	38,632,317	-	(576,694)	38,055,623	-1.49%	-
Almanac Realty Securities VIII	2,167,723	-	-	2,167,723	-	-
Clarion Ventures 4	30,151,501	-	1,612,984	31,764,485	5.35%	-
Colony Investors VIII, L.P.	1,483,767	-	-	1,483,767	-	-
Coventry	241,737	-	-	241,737	-	-
ING Clarion Development Ventures III	2,342,966	-	-	2,342,966	-	-
KKR Real Estate Partners Americas II	8,480,544	-	1,004,229	9,484,773	11.84%	-
KKR Real Estate Partners Americas L.P.	18,730,836	292,948	(4,005,877)	15,017,907	-19.82%	1.75%
Silverpeak Legacy Pension Partners II, L.P.	3,244,233	-	-	3,244,233	-	-
Silverpeak Legacy Pension Partners III, L.P.	4,260,286	-	-	4,260,286	-	-
Tishman Speyer Real Estate Venture VI	22,336,658	-	-	22,336,658	-	-
Tishman Speyer Real Estate Venture VII	547,147	 	 	 547,147	-	-
Total Non-Core Commingled	133,707,325	292,948	(1,965,358)	132,034,915	-1.25%	0.22%
Total Real Estate	1,508,909,973	3,491,791	(12,787,962)	1,499,613,802	-0.62%	0.23%
Total Real Assets	4,409,015,057	28,001,707	(781,729,934)	3,655,286,830	-17.10%	0.70%
Total Assets	\$ 26,720,672,995	\$ 66,656,549	\$ 194,887,312	\$ 26,982,216,856	0.98%	0.25%

ALASKA RETIREMENT MANAGEMENT BOARD

Reporting of Funds by Manager

Participant Directed Plans

Supplemental Annuity Plan Schedule of Investment Income and Changes in Invested Assets for the Month Ended July 31, 2019

]	Beginning Invested Assets]	Investment Income		Net Contributions (Withdrawals)	Transfers In (Out)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income (1)
Participant Options	_	_		-	-	· · · · · · · · · · · · · · · · · · ·	<u> </u>			
T. Rowe Price										
Stable Value Fund	\$	392,369,514	\$	833,524	\$	(4,365,213) \$	2,092,376 \$	390,930,201	-0.37%	0.21%
Small Cap Stock Fund		194,793,591		3,627,303		(83,362)	2,308,140	200,645,672	3.00%	1.85%
Alaska Balanced Trust		1,141,247,376		2,676,221		(3,898,560)	(3,912,058)	1,136,112,979	-0.45%	0.24%
Long Term Balanced Fund		685,771,667		1,878,306		234,713	(3,101,260)	684,783,426	-0.14%	0.27%
AK Target Date 2010 Trust		10,212,399		26,049		(19,570)	(29,404)	10,189,474	-0.22%	0.26%
AK Target Date 2015 Trust		83,245,319		234,041		(158,701)	(130,179)	83,190,480	-0.07%	0.28%
AK Target Date 2020 Trust		99,276,890		304,227		(979,902)	(696,357)	97,904,858	-1.38%	0.31%
AK Target Date 2025 Trust		85,540,608		275,634		(25,922)	(1,143,205)	84,647,115	-1.04%	0.32%
AK Target Date 2030 Trust		65,116,517		214,515		432,442	602,788	66,366,262	1.92%	0.33%
AK Target Date 2035 Trust		61,565,331		216,346		682,098	(650,905)	61,812,870	0.40%	0.35%
AK Target Date 2040 Trust		61,841,167		225,799		712,853	(350,952)	62,428,867	0.95%	0.36%
AK Target Date 2045 Trust		70,139,429		257,759		766,285	(198,546)	70,964,927	1.18%	0.37%
AK Target Date 2050 Trust		79,036,714		289,476		873,477	(126,742)	80,072,925	1.31%	0.36%
AK Target Date 2055 Trust		70,223,061		253,353		1,949,632	(172,891)	72,253,155	2.89%	0.36%
AK Target Date 2060 Trust		4,140,031		15,029	_	13,624	2,264	4,170,948	0.75%	0.36%
Total Investments with T. Rowe Price	_	3,104,519,614	_	11,327,582	_	(3,866,106)	(5,506,931)	3,106,474,159		
State Street Global Advisors										
Money Market		48,255,567		87,623		(773,307)	1,012,686	48,582,569	0.68%	0.18%
S&P 500 Stock Index Fund Series A		479,030,501		6,897,854		(398,075)	325,297	485,855,577	1.42%	1.44%
Russell 3000 Index		76,068,537		1,153,170		62,029	(165,928)	77,117,808	1.38%	1.52%
US Real Estate Investment Trust Index		40,491,477		647,448		97,418	(1,896,002)	39,340,341	-2.84%	1.64%
World Equity Ex-US Index		69,654,654		(1,120,892)		148,580	1,486,019	70,168,361	0.74%	-1.59%
US Treasury Inflation Protected Securities Index		47,838,558	_	177,067	_	(157,125)	1,017,192	48,875,692	2.17%	0.37%
Total Investments with SSgA	_	761,339,294	_	7,842,270	-	(1,020,480)	1,779,264	769,940,348		
BlackRock										
Passive U.S. Bond Index Fund		123,323,564		277,965		(254,236)	3,230,224	126,577,517	2.64%	0.22%
Brandes/Baillie Gifford (2)										
AK International Equity Fund		63,624,463		(547,693)		(84,816)	(67,962)	62,923,992	-1.10%	-0.86%
Northern Trust										
Environmental, Social, and Governance Fund		58,824,171		1,100,351		(186,939)	565,405	60,302,988	2.51%	1.86%
Total All Funds	\$	4,111,631,106	\$	20,000,475	\$	(5,412,577) \$	- \$	4,126,219,004	0.35%	0.49%

Notes: Source data provided by the record keeper, Empower Retirement

⁽¹⁾ Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates.

⁽²⁾ This investment is comprised of two funds, Brandes International Equity Fund and Baillie Gifford International Equity Fund.

Supplemental Annuity Plan

Schedule of Invested Assets with

Schedule of Investment Income and Changes in Invested Assets By Month Through the Month Ended

July 31, 2019 \$ (Thousands)

Invested Assets (at fair value)	_	July
Investments with T. Rowe Price		
Stable Value Fund	\$	390,930
Small Cap Stock Fund		200,646
Alaska Balanced Trust		1,136,113
Long Term Balanced Fund		684,783
AK Target Date 2010 Trust		10,189
AK Target Date 2015 Trust		83,190
AK Target Date 2020 Trust		97,905
AK Target Date 2025 Trust		84,647
AK Target Date 2030 Trust		66,366
AK Target Date 2035 Trust		61,813
AK Target Date 2040 Trust		62,429
AK Target Date 2045 Trust		70,965
AK Target Date 2050 Trust		80,073
AK Target Date 2055 Trust		72,253
AK Target Date 2060 Trust		4,171
State Street Global Advisors		
Money Market		48,583
S&P 500 Stock Index Fund Series A		485,856
Russell 3000 Index		77,118
US Real Estate Investment Trust Index		39,340
World Equity Ex-US Index		70,168
US Treasury Inflation Protected Securities Index		48,876
Investments with BlackRock		
Passive U.S. Bond Index Fund		126,578
Tussive C.S. Bond Index Tund		120,570
Investments with Brandes/Baillie Gifford		
AK International Equity Fund		62,924
Investments with Northern Trust		
Environmental, Social, and Governance Fund	_	60,303
Total Invested Assets	\$	4,126,219
Change in Invested Assets		
Beginning Assets	\$	4,111,631
Investment Earnings		20,000
Net Contributions (Withdrawals)	_	(5,413)
Ending Invested Assets	\$	4,126,219

Deferred Compensation Plan Schedule of Invested Assets and Changes in Invested Assets for the Month Ended

July 31, 2019

			ouly .				% Change in	% Change due	
	В	eginning Invested		Net Contributions		Ending Invested	Invested	to Investment	
		Assets	Investment Income	(Withdrawals)	Transfers In (Out)	Assets	Assets	Income (1)	
Participant Options									
T. Rowe Price	Φ.	100 170 070	200.0=0	(0.1.0, 1.0.0)	500 500 A	100 150 010	0.4.504	0.40/	
Stable Value Fund	\$	183,173,978 \$	390,879	, , ,		183,473,949	0.16%	0.21%	
Small Cap Stock Fund		118,755,948	2,198,054	(244,152)	(303,832)	120,406,018	1.39%	1.86%	
Alaska Balanced Trust		31,145,707	72,709	(66,825)	354,876	31,506,467	1.16%	0.23%	
Long Term Balanced Fund		87,189,212	242,854	(416,830)	(816,773)	86,198,463	-1.14%	0.28%	
AK Target Date 2010 Trust		4,053,497	10,273	3,816	(90,308)	3,977,278	-1.88%	0.26%	
AK Target Date 2015 Trust		9,405,120	27,125	3,513	(25,227)	9,410,531	0.06%	0.29%	
AK Target Date 2020 Trust		24,998,273	76,661	(392,210)	118,207	24,800,931	-0.79%	0.31%	
AK Target Date 2025 Trust		20,772,017	66,862	163,292	(160,780)	20,841,391	0.33%	0.32%	
AK Target Date 2030 Trust		13,225,691	42,808	164,672	146,774	13,579,945	2.68%	0.32%	
AK Target Date 2035 Trust		8,144,272	30,005	115,588	(396,721)	7,893,144	-3.08%	0.37%	
AK Target Date 2040 Trust		8,866,446	32,325	128,005	(41,593)	8,985,183	1.34%	0.36%	
AK Target Date 2045 Trust		6,452,280	23,369	109,204	(27,756)	6,557,097	1.62%	0.36%	
AK Target Date 2050 Trust		4,648,080	16,937	121,206	(24,664)	4,761,559	2.44%	0.36%	
AK Target Date 2055 Trust		4,476,700	16,347	62,860	(16,956)	4,538,951	1.39%	0.36%	
AK Target Date 2060 Trust		930,289	3,752	19,001	(60,701)	892,341	-4.08%	0.41%	
Total Investments with T. Rowe Price		526,237,510	3,250,960	(1,048,288)	(616,934)	527,823,248			
State Street Global Advisors									
Money Market		14,788,672	27,233	(29,392)	652,321	15,438,834	4.40%	0.18%	
Russell 3000 Index		48,391,583	728,418	300,803	389,229	49,810,033	2.93%	1.49%	
US Real Estate Investment Trust Index		14,949,223	236,820	49,326	(849,401)	14,385,968	-3.77%	1.63%	
World Equity Ex-US Index		21,965,428	(352,372)	144,063	186,101	21,943,220	-0.10%	-1.59%	
US Treasury Inflation Protected Securities Index		18,932,257	70,463	40,835	117,067	19,160,622	1.21%	0.37%	
Total Investments with SSgA		119,027,163	710,562	505,635	495,317	120,738,677			
BlackRock									
S&P 500 Index Fund		218,773,306	3,174,026	(130,484)	(680,064)	221,136,784	1.08%	1.45%	
Passive U.S. Bond Index Fund		61,916,203	136,284	(417,770)	821,208	62,455,925	0.87%	0.22%	
Total Investments with BlackRock		280,689,509	3,310,310	(548,254)	141,144	283,592,709			
Brandes/Baillie Gifford (2)									
AK International Equity Fund		34,125,509	(292,336)	(73,532)	(180,196)	33,579,445	-1.60%	-0.86%	
• •		- · · · · · · · · · · · · · · · · · · ·	(=>=,===)	(, 0, 002)	(100,170)		2.5070	0.0070	
Northern Trust		02 512 007	4.42.000	(64.007)	100.000	24.052.407	2.200/	1 000/	
Environmental, Social, and Governance Fund		23,513,826	442,009	(64,007)	160,669	24,052,497	2.29%	1.88%	
Total All Funds	\$	983,593,517 \$	7,421,505	(1,228,446) \$	- \$	989,786,576	0.63%	0.76%	

Notes: Source data provided by the record keeper, Empower Retirement.

⁽¹⁾ Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates.

⁽²⁾ This investment is comprised of two funds, Brandes International Equity Fund and Baillie Gifford International Equity Fund.

Deferred Compensation Plan

Schedule of Invested Assets with

Schedule of Investment Income and Changes in Invested Assets By Month Through the Month Ended

July 31, 2019

\$ (Thousands)

<u>Invested Assets</u> (at fair value)		July
Investments with T. Rowe Price		
Stable Value Fund	\$	183,474
Small Cap Stock Fund		120,406
Alaska Balanced Trust		31,506
Long Term Balanced Fund		86,198
AK Target Date 2010 Trust		3,977
AK Target Date 2015 Trust		9,411
AK Target Date 2020 Trust		24,801
AK Target Date 2025 Trust		20,841
AK Target Date 2030 Trust		13,580
AK Target Date 2035 Trust		7,893
AK Target Date 2040 Trust		8,985
AK Target Date 2045 Trust		6,557
AK Target Date 2050 Trust		4,762
AK Target Date 2055 Trust		4,539
AK Target Date 2060 Trust		892
State Street Global Advisors		
Money Market		15,439
Russell 3000 Index		49,810
US Real Estate Investment Trust Index		14,386
World Equity Ex-US Index		21,943
US Treasury Inflation Protected Securities Index		19,161
Investments with BlackRock		
S&P 500 Index Fund		221,137
Passive U.S. Bond Index Fund		62,456
Investments with Brandes/Baillie Gifford		
AK International Equity Fund		33,579
Investments with Northern Trust		
Environmental, Social, and Governance Fund	. —	24,052
Total Invested Assets	\$ _	989,787
Change in Invested Assets		
Beginning Assets	\$	983,594
Investment Earnings Not Contributions (With drawels)		7,422
Net Contributions (Withdrawals)	Φ —	(1,228)
Ending Invested Assets	\$ _	989,787

Defined Contribution Retirement - Participant Directed PERS Schedule of Investment Income and Changes in Invested Assets for the Month Ended July 31, 2019

	В	eginning Invested Assets	I	nvestment Income	Net Contributions (Withdrawals)	Transfers In (Out)	Ending Invested Assets	% Change in Invested Assets	% Change due to Investment Income (1)
Participant Options		_		_			_		
T. Rowe Price									
Stable Value Fund	\$	48,809,381	\$	104,808	\$ (163,367) \$	799,263 \$	49,550,085	1.52%	0.21%
Small Cap Stock Fund		83,318,573		1,550,417	199,074	519,624	85,587,688	2.72%	1.85%
Alaska Balanced Trust		25,502,564		59,973	57,913	(361,491)	25,258,959	-0.96%	0.24%
Long Term Balanced Fund		16,029,446		45,871	42,236	(547,816)	15,569,737	-2.87%	0.29%
AK Target Date 2010 Trust		2,525,377		6,844	(135,580)	(33,058)	2,363,583	-6.41%	0.28%
AK Target Date 2015 Trust		12,369,352		34,517	51,719	(8,463)	12,447,125	0.63%	0.28%
AK Target Date 2020 Trust		36,052,290		107,643	298,450	(145,871)	36,312,512	0.72%	0.30%
AK Target Date 2025 Trust		58,488,766		183,599	485,640	(160,607)	58,997,398	0.87%	0.31%
AK Target Date 2030 Trust		60,963,455		203,494	505,602	(3,212)	61,669,339	1.16%	0.33%
AK Target Date 2035 Trust		74,039,109		258,613	375,714	(218,141)	74,455,295	0.56%	0.35%
AK Target Date 2040 Trust		87,614,285		317,130	653,977	(336,054)	88,249,338	0.72%	0.36%
AK Target Date 2045 Trust		112,887,002		411,207	828,796	(417,365)	113,709,640	0.73%	0.36%
AK Target Date 2050 Trust		134,021,633		487,813	935,909	(253,849)	135,191,506	0.87%	0.36%
AK Target Date 2055 Trust		121,433,639		434,920	2,038,535	(361,602)	123,545,492	1.74%	0.36%
AK Target Date 2060 Trust		1,356,670		4,351	24,404	51,688	1,437,113	5.93%	0.31%
Total Investments with T. Rowe Price		875,411,542		4,211,200	6,199,022	(1,476,954)	884,344,810		
State Street Global Advisors									
Money Market		11,522,974		20,710	(11,722)	(177,016)	11,354,946	-1.46%	0.18%
S&P 500 Stock Index Fund Series A		110,222,202		1,581,586	412,392	598,395	112,814,575	2.35%	1.43%
Russell 3000 Index		12,780,416		193,318	73,113	117,919	13,164,766	3.01%	1.50%
US Real Estate Investment Trust Index		17,339,485		275,293	(6,594)	(371,715)	17,236,469	-0.59%	1.61%
World Equity Ex-US Index		60,145,431		(967,156)	201,273	1,030,678	60,410,226	0.44%	-1.59%
US Treasury Inflation Protected Securities Index		20,312,433		74,043	(25,750)	(309,391)	20,051,335	-1.29%	0.37%
Total Investments with SSgA		232,322,941		1,177,794	642,712	888,870	235,032,317		
BlackRock									
Passive U.S. Bond Index Fund		51,722,138		115,429	52,326	856,066	52,745,959	1.98%	0.22%
Brandes/Baillie Gifford (2) AK International Equity Fund		40,463,051		(345,890)	173,221	(486,175)	39,804,207	-1.63%	-0.86%
Northern Trust Environmental, Social, and Governance Fund		18,834,302		354,083	42,598	218,193	19,449,176	3.26%	1.87%
Total All Funds	\$ <u></u>	1,218,753,974	\$ <u></u>	5,512,616	\$ 7,109,879 \$	<u> </u>	1,231,376,469	1.04%	0.45%

Notes: Source data provided by the record keeper, Empower Retirement.

⁽¹⁾ Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates. (2) This investment is comprised of two funds, Brandes International Equity Fund and Baillie Gifford International Equity Fund.

Defined Contribution Retirement - Participant Directed PERS Schedule of Invested Assets with

Schedule of Investment Income and Changes in Invested Assets By Month Through the Month Ended July 31, 2019

\$ (Thousands)

<u>Invested Assets</u> (at fair value)		July
Investments with T. Rowe Price		
Stable Value Fund	\$	49,550
Small Cap Stock Fund		85,588
Alaska Balanced Trust		25,259
Long Term Balanced Fund		15,570
AK Target Date 2010 Trust		2,364
AK Target Date 2015 Trust		12,447
AK Target Date 2020 Trust		36,313
AK Target Date 2025 Trust		58,997
AK Target Date 2030 Trust		61,669
AK Target Date 2035 Trust		74,455
AK Target Date 2040 Trust		88,249
AK Target Date 2045 Trust		113,710
AK Target Date 2050 Trust		135,192
AK Target Date 2055 Trust		123,545
AK Target Date 2060 Trust		1,437
State Street Global Advisors		
Money Market		11,355
S&P 500 Stock Index Fund Series A		112,815
Russell 3000 Index		13,165
US Real Estate Investment Trust Index		17,236
World Equity Ex-US Index		60,410
US Treasury Inflation Protected Securities Index		20,051
Investments with BlackRock		
Passive U.S. Bond Index Fund		52,746
Investments with Brandes/Baillie Gifford		
AK International Equity Fund		39,804
Investments with Northern Trust		
Environmental, Social, and Governance Fund		19,449
Total Invested Assets	\$ _	1,231,376
Change in Invested Assets		
Beginning Assets	\$	1,218,754
Investment Earnings		5,513
Net Contributions (Withdrawals)		7,110
Ending Invested Assets	\$ _	1,231,376

Defined Contribution Retirement - Participant Directed TRS Schedule of Investment Income and Changes in Invested Assets for the Month Ended July 31, 2019

	Be	ginning Invested		Net Contributions		Ending Invested	% Change in Invested	% Change due to Investment
		Assets	Investment Income	(Withdrawals)	Transfers In (Out)	Assets	Assets	Income (1)
Participant Options								
T. Rowe Price								
Stable Value Fund	\$	20,332,872	\$ 43,624 \$	(18,670) \$	181,765 \$	20,539,591	1.02%	0.21%
Small Cap Stock Fund		35,581,342	661,871	67,674	57,257	36,368,144	2.21%	1.86%
Alaska Balanced Trust		10,952,781	26,047	7,095	(294,263)	10,691,660	-2.38%	0.24%
Long Term Balanced Fund		6,888,023	20,125	(10,210)	(324,069)	6,573,869	-4.56%	0.30%
AK Target Date 2010 Trust		837,957	2,022	(13,939)	34,061	860,101	2.64%	0.24%
AK Target Date 2015 Trust		3,755,368	10,841	(47,881)	-	3,718,328	-0.99%	0.29%
AK Target Date 2020 Trust		10,742,505	32,816	(125,495)	(25,088)	10,624,738	-1.10%	0.31%
AK Target Date 2025 Trust		19,624,352	62,987	121,009	(124,488)	19,683,860	0.30%	0.32%
AK Target Date 2030 Trust		22,790,182	75,964	257,933	(43,537)	23,080,542	1.27%	0.33%
AK Target Date 2035 Trust		33,815,150	116,669	320,403	(60,483)	34,191,739	1.11%	0.34%
AK Target Date 2040 Trust		36,786,282	134,526	473,982	(258,892)	37,135,898	0.95%	0.36%
AK Target Date 2045 Trust		54,914,607	201,879	279,283	(95,728)	55,300,041	0.70%	0.37%
AK Target Date 2050 Trust		76,786,999	278,026	842,063	(107,939)	77,799,149	1.32%	0.36%
AK Target Date 2055 Trust		41,323,313	144,105	1,137,822	(26,019)	42,579,221	3.04%	0.34%
AK Target Date 2060 Trust		516,376	1,840	5,709	<u> </u>	523,925	1.46%	0.35%
Total Investments with T. Rowe Price		375,648,109	1,813,342	3,296,778	(1,087,423)	379,670,806		
State Street Global Advisors								
Money Market		3,202,484	5,826	(79,640)	15,076	3,143,746	-1.83%	0.18%
S&P 500 Stock Index Fund Series A		44,701,735	642,726	98,552	116,078	45,559,091	1.92%	1.43%
Russell 3000 Index		4,241,979	61,579	44,403	220,552	4,568,513	7.70%	1.41%
US Real Estate Investment Trust Index		6,976,394	109,710	10,367	(24,272)	7,072,199	1.37%	1.57%
World Equity Ex-US Index		27,091,750	(436,495)	50,157	497,307	27,202,719	0.41%	-1.60%
US Treasury Inflation Protected Securities Index		7,445,383	26,925	(23,013)	(537)	7,448,758	0.05%	0.36%
Total Investments with SSgA		93,659,725	410,271	100,826	824,204	94,995,026		
BlackRock								
Passive U.S. Bond Index Fund		21,005,019	47,017	(8,804)	407,516	21,450,748	2.12%	0.22%
Brandes/Baillie Gifford (2)								
AK International Equity Fund		17,855,044	(150,379)	33,130.00	(369,641)	17,368,154	-2.73%	-0.85%
Northern Trust								
Environmental, Social, and Governance Fund		7,904,759	148,373	(2,228.00)	225,344	8,276,248	4.70%	1.85%
Total All Funds	\$	516,072,656	\$ 2,268,624 \$	3,419,702 \$	- \$	521,760,982	1.10%	0.44%

Notes: Source data provided by the record keeper, Empower Retirement.
(1) Income divided by beginning assets plus half of net contributions/(withdrawals). Actual returns are calculated by Callan and Associates.
(2) This investment is comprised of two funds, Brandes International Equity Fund and Baillie Gifford International Equity Fund.

Defined Contribution Retirement - Participant Directed TRS Schedule of Invested Assets with

Schedule of Investment Income and Changes in Invested Assets By Month Through the Month Ended July 31, 2019

\$ (Thousands)

<u>Invested Assets</u> (at fair value)		July
Investments with T. Rowe Price		
Stable Value Fund	\$	20,540
Small Cap Stock Fund		36,368
Alaska Balanced Trust		10,692
Long Term Balanced Fund		6,574
AK Target Date 2010 Trust		860
AK Target Date 2015 Trust		3,718
AK Target Date 2020 Trust		10,625
AK Target Date 2025 Trust		19,684
AK Target Date 2030 Trust		23,081
AK Target Date 2035 Trust		34,192
AK Target Date 2040 Trust		37,136
AK Target Date 2045 Trust		55,300
AK Target Date 2050 Trust		77,799
AK Target Date 2055 Trust		42,579
AK Target Date 2060 Trust		524
State Street Global Advisors		
Money Market		3,144
S&P 500 Stock Index Fund Series A		45,559
Russell 3000 Index		4,569
US Real Estate Investment Trust Index		7,072
World Equity Ex-US Index		27,203
US Treasury Inflation Protected Securities Index		7,449
Investments with BlackRock		
Passive U.S. Bond Index Fund		21,451
Investments with Brandes/Baillie Gifford□		
AK International Equity Fund		17,368
Investments with Northern Trust		
Environmental, Social, and Governance Fund		8,276
Total Invested Assets	\$ _	521,761
Change in Invested Assets		
Beginning Assets	\$	516,073
Investment Earnings		2,269
Net Contributions (Withdrawals)		3,420
Ending Invested Assets	\$ _	521,761